



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

J.F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203-2211

October 21, 1992

COPY

Ms. Diane M. Leber
Ciba-Geigy Corporation
444 Saw Mill River Road
Ardsley, NY 10502-2699

Re: CIBA-GEIGY Cranston Site: Phase II - Quality Assurance
Documents, Supplement Parts 1 & 2 - Dated January & June
1992 - APPROVAL

Dear Ms. Leber:

EPA has completed its review of Ciba-Geigy's Phase II - Quality Assurance Documents, Supplement Parts 1 & 2 - Dated January & June 1992. The Agency has approved the documents under the condition that the following comments are satisfactorily resolved:

APPENDIX C

- 1) Section 5, Page 1: The formula provided to calculate precision by relative percent difference is incorrect. The denominator should be $(V1 + V2)/2$.
- 2) Section 6: This section should state that prior to use, all sample bottles will be pre-cleaned and certified contaminant-free.
- 3) Section 9, Page 6: The laboratory should never rinse the glassware with methylene chloride or acetone, but rather, rinse all glassware with methanol and dry it in a drying oven.
- 4) Section 10, Page 4/5: The data deliverables lists for the volatile GC/MS (8240) and semivolatile GC/MS (8270) analyses are not sufficiently specific to ensure delivery of a complete data package for data validation. For example, the tune summaries and surrogate data are both listed as Form V and the surrogate data is listed again as Form II. CIBA-GEIGY should consider requiring the laboratory to report the data using the format described in Exhibit B of the CLP organics Statement of Work since this is the format with which data reviewers are most familiar.



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APPENDIX D

- 1) Section 5: Table 5-1 of the "Quality Assurance Document - Supplement #1" presents precision and accuracy goals for several compounds including the following: Sulfotep, 2,4,5-T, and the fingerprint compounds, Irgasan-DP-300, Tofranil and Butasolidin. These compounds should also be listed in the Section 5 tables of PACE's QA plan or in Section 9 as matrix spike compounds.
- 2) Table 6-1: The preservation for metals should also cite footnote "4," cooling to 4 degrees centigrade.
- 3) Table 9-1: The PQLs presented for soil volatile organic analyses are ten times greater than what is generally considered achievable by this method. PQLs between 5 and 500 ug/Kg should be achievable by this analytical method. CIBA-GEIGY should evaluate whether the PQLs presented by the laboratory will meet the objectives of sample collection.

APPENDIX E

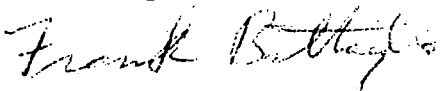
- 1) Page 8-1: Daily mass spectrometer tuning frequency should be specified.
- 2) Page 14-1: Precision for replicate samples is generally assessed by the calculation of relative percent difference (RPD), and not the percent relative standard deviation (%RSD). The laboratory presented the correct formula for RPD on page 5-1.

APPENDIX F

- 1) Table 6-1: This table should also include holding times.

If you have any questions on the format for resolving these comments, please contact me at (617) 573-9643.

Sincerely,



Frank Battaglia, Environmental Engineer
MA & RI Waste Regulation Section

cc: Mark Houlday, Woodward-Clyde Consultants